



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,000	07/06/2001	Brendan J. Kitts	VIGN1140	8766

44654 7590 01/04/2006

SPRINKLE IP LAW GROUP
1301 W. 25TH STREET
SUITE 408
AUSTIN, TX 78705

EXAMINER

CHOI, PETER H

ART UNIT	PAPER NUMBER
----------	--------------

3623

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/682,000	Applicant(s) KITTS, BRENDAN J.	
	Examiner Peter Choi	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,7,10,11,15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,10,11,15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/28/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This **FINAL** Office Action is responsive to Applicant's amendment filed 10/13/05. Claims 3, 4, 5, 8, 9, 12, 13 and 14 have been canceled in compliance with the Restriction Requirement made prior to the previous Office Action mailed 7/11/05. Claims 1, 6, 7, 11, 12 and 16 have been amended. Claims 1, 2, 6, 7, 10, 11, 15, and 16 are pending in the application.

Claim Rejections - 35 USC § 112

2. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 15 is dependent on independent claim 10, which is a system with code embodied therein and executable by a data processing system. However, in line 2 of claim 15, it is cited that "...the **method** further comprises:". A method claim cannot be dependent on a system claim (and vice versa). As claims dependent on system claim 10, claims 11 and 15 must also be method claims, as no more than one statutory class of invention is permitted per claims. For purposes of the following art rejection, the

Art Unit: 3623

examiner has interpreted that claim 15 is dependent on the system of claim 10 and line 2 has been interpreted to read "... the system further comprises:". Correction is required.

As noted above, the second paragraph of 35 USC 112 requires a claim to particularly point out and distinctly claim the subject matter that the applicant regards as his invention. However, the "invention" referred to in the second paragraph of 35 USC 112 is also subject to the requirements of 35 USC 101. It is clear that applicant's dependent claim 15 is intended to embrace or overlap *two* different statutory classes of invention set forth in 35 USC 101. A claim of this type is precluded by the express language of 35 USC 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. A single claim which purposes to be both a method and a system is ambiguous and is rejected under 35 USC 112, second paragraph, for failing to particularly point out and distinctly claim the invention. *Ex parte Lyell*, USPQ. 2d (Board of Patent Appeals and Interferences) 1548, 1551.

Claim Rejections - 35 USC § 101

4. The previous 35 USC § 101 objections made in the Office Action dated 7/11/05 is withdrawn in view of the applicant's amendment to the claims.

Information Disclosure Statement

5. Applicant claims to have filed information disclosure statements on October 22, 2004 and March 30, 2005. The alleged information disclosure statements are not found in the application file and thus have not been considered. The Examiner previously considered the information disclosure statements filed on February 4, 2003, February 17, 2004, September 20, 2004, and April 1, 2005 and has now considered the information disclosure statements filed on January 31, 2005 and February 28, 2005.

Response to Arguments

6. Applicant's arguments filed 10/13/05 have been fully considered but they are not persuasive.

Applicant argues that Anderson does not teach the claimed method of predicting business potential, further arguing that the scores taught by Anderson do not say anything about the business potential for a user to actually purchase an item, not providing a measure of the transaction quantity the customer potentially has to spend in that market segment.

Art Unit: 3623

The Examiner respectfully disagrees and cites the following passages of Anderson et al.

“The scores for each customer record are computed, preferably, in accordance with an external process which compares customer descriptive information in the customer record with the products and then returns as scores values indicating whether a match would likely exist between the customer record and the products, i.e., returns scores indicating whether a customer associated with the record is likely to buy the products” [Column 6, line 62 – Column 7, line 2].

“The scores may, for example, be computed by developing statistical models with techniques such as logistic regression or rule induction, or techniques based on various forms of neural networks. Such models typically relate prospect demographics to “propensity to buy” using historical data collected through past marketing campaigns. Alternative business variables such as predicted revenue or customer loyalty can be used for scoring, if the objective is to maximize revenue or identify long-term customers, rather than expanding customer base” [Column 7, lines 9-19].

“Customer records 10 contain information on various attributes (age, location, and sex) of Customers 1 through N, which attributes may serve as a basis for determining Customer 1 through N’s affinity for Products A, B, and C” [Column 7, lines 29-32].

Paragraph 34 of the Applicant's specification reads: "In one embodiment, the prediction can be based in part on transactional data that is routinely collected by many businesses. The potential can be related to customer preferences for products or services, maximum amounts spent by customers during a single transaction or a predetermined length of time, geographic locations, any combinations of these, or the like."

The score generated by Anderson et al. is representative of a predictive measure of a customer's propensity to buy a product based on customer demographic data and historical purchasing data. Therefore, the prediction is based on transactional data, and related to customer preferences for products or services, thus meeting the limitations of the claim language.

Applicant argues that Novo simply teaches the concept that the most frequent, most recent and highest spending customers are more likely to buy again, indicating that marketing should be directed at these customers.

The Examiner asserts that this concept is within the scope of business potential, as disclosed in paragraph 34 of the Applicant's specification, which reads: "In one embodiment, the prediction can be based in part on transactional data that is routinely collected by many businesses. The potential can be related to customer preferences for

Art Unit: 3623

products or services, *maximum amounts spent by customers during a single transaction or a predetermined length of time*, geographic locations, any combinations of these, or the like.”

Applicant argues that Novo does not teach or suggest predicting the value of a transaction quantity for a customer.

The Examiner respectfully disagrees. The Examiner asserts that support exists on pages 3-5, which reads:

“The Recency, Frequency, Monetary value (RFM) model works everywhere, in virtually every high activity business. And it works for just about any kind of “action-oriented” behavior you are trying to get a customer to repeat, *whether it’s purchases, visits, sign-ups, surveys, games, or anything else*. I’m going to use purchases and visits as example.

Customers who have not visited or purchased in a while are less interested in you than customers who have done one of these things recently. *Put Recency, Frequency, and Monetary Value together and you have a pretty good indicator of interest in your site at the customer level*. This is valuable information for a business to have.

Assuming the behavior being ranked (purchase, visit) using *RFM has economic value, the higher the RFM score, the more profitable the customer is to the business now and in the future*. High RFM customers are most likely to continue to purchase and visit, AND they are most likely to respond to marketing promotions. The opposite is true for low RFM customers; they are the least likely to purchase or visit again AND the least likely to respond to marketing promotions.

For these reasons, RFM is closely related to another customer direct marketing concept: LifeTime Value (LTV). LTV is the expected net profit a customer will contribute to your business as long as the customer remains a customer. *Because of the linkage to LTV, RFM techniques can be used as a proxy for the future profitability of a business.*

High RFM customer represent future business potential, because the customers are willing and interested in doing business with you, and have high LTV. Low RFM customers represent dwindling business opportunity, low LTV, and are a flag something needs to be done with those customers to increase their value."

The applicability of the RFM model towards "action-oriented" behavior, suggests its compatibility with transactional quantities of commercial interest (such as amount of money, and web-clicks, as defined in paragraph 42 of the Applicant's specification) that define a customer's business potential; thus, Novo teaches the prediction of the value of a transaction quantity for a customer.

Applicant argues that neither Anderson nor Novo assigns “a value for the business potential for the first customer, wherein the value is a function of at least a behavior for a group of other individuals in a population and is based at least in part on the data, and wherein the business potential measures a potential transaction quantity available for the first customer”.

The Examiner respectfully disagrees. Novo teaches that all of their customers are ranked according to the recency, frequency, and monetary value data stored for each customer. Thus, each customer’s ranking is a function of the behavior of other customers, is based on customer data, and, as discussed above, measures a potential transaction quantity available for a customer.

It is noted that the applicant did not challenge the Official Notice cited in the First Office Action; therefore, those statements are presented herein after as prior art. Specifically, it has been established that it was old and well known in the art at the time of invention:

- A plurality of algorithms perform computational or search times proportional to N or $N \cdot \log(N)$

Art Unit: 3623

It is noted that the applicant did not challenge the statement of inherency cited in the First Office Action. Specifically, the applicant did not refute the fact that transactional data regarding customer purchases is internally collected from point-of-transaction terminals.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 6, 7, 10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (U.S Patent #6,078,892) in view of Lazarus et al. (U.S Patent #6,430,539).

As per claim 1, Anderson et al. teaches a method of predicting a business potential for a first customer comprising:

accessing (**searching customer records which are preferably stored in a marketing database**) data stored on a computer-readable medium (**marketing database; any conventionally known storage device, including but not limited to a database and CD ROM, as well as various types of optical and magnetic storage**

Art Unit: 3623

media) regarding the first customer (**a plurality of customer records each containing data relating to a different customer**) of a vendor [Column 2, lines 43-53, Column 4, line 66 – Column 5, line 2, Column 6, lines 54-55; Claim 1; Abstract]; and

assigning a value (**assigning scores**) for the business potential for the first customer, wherein the value is a function of at least a behavior (**affinity for particular products**) for a group of other individuals in a population (**Customers 1 through N**) and is based at least in part on the data (**scores indicating a relationship between a respective one of said customer records and a product**) [Column 7, lines 26-51 and Claim 1].

Anderson et al. does not explicitly teach a business potential that measures a potential transaction quantity available for the first customer. However, Lazarus et al. teaches a predictive model of future consumer spending patterns (a measurement of potential transaction quantity), specifically that:

Each consumer is given a profile that includes various demographic data, and summary data on spending habits [Column 3, lines 55-57]

Current spending data of an individual consumer or groups of consumers can then be applied to the predictive models to predict future spending of the consumers in each of the merchant clusters [Column 3, lines 5-10].

Lazarus et al. creates a predictive model of future spending in each merchant segment, based on transaction statistics of historical spending in the merchant segment by those consumers who have purchased from merchants in the segments, in other segments, and data on overall purchases. In one embodiment, each predictive model predicts spending in a merchant cluster in a predicted time interval [Column 4, lines 11-18].

To predict financial behavior, the consumer profile of a consumer, using preferably the same type of summary statistics for a recent, past time period, is input into the predictive models for the different merchant clusters. The result is a prediction of the amount of money that the consumer is likely to spend in each merchant cluster in a future time interval [Column 4, lines 38-45].

Anderson et al. is directed towards retrieving customer information from a database and determining a score representative of customer relevance to a particular item of interest. Lazarus et al. is directed towards the analogous art of analyzing consumer transaction data to generate predictive models of future spending. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Anderson et al. to include a measurement of potential transaction quantity, because the resulting invention would enable companies to selectively identify populations of consumers (for example, those with predicted high or low dollar amounts or transaction rates) for targeted promotions, which increases the

Art Unit: 3623

success rate of response to said promotions, leading to increased revenue and profitability.

As per claim 6, Anderson et al. teaches the method of claim 1, further comprising:

storing **(storing data records as a collection of data records)** the data on a computer-readable medium **(within a database containing a plurality of data records each containing information of interest; marketing database; any conventionally known storage device, including but not limited to a database and CD ROM, as well as various types of optical and magnetic storage media)**, wherein the acts of collecting, storing, accessing, and assigning are performed by the vendor [Column 2, lines 43-53, Column 4, line 66 – Column 5, line 2, Column 5, lines 45-47 and Column 11, lines 56-61].

Although not specifically taught by Anderson et al., it is inherent that the transactional data regarding customer purchases were internally collected from point-of-transaction terminals. Thus, the data is obtained and stored by the vendor, meeting the limitation of the claim.

Claim 15 is rejected on a similar basis.

Art Unit: 3623

As per claim 7, Anderson et al. does not explicitly teach the method of claim 1, wherein the method takes a computational time that is substantially directly proportional to N or $N \cdot \log(N)$, wherein N is the number of transactions being analyzed.

However, Official Notice is taken that it is old and well known in the art that computational and search times are directly related to the number of records being analyzed.

Algorithms with a computation time of N require a single pass over an entire input. For instance, computing an average value requires the consideration of each value within the set.

Algorithms with a computation time of $N \cdot \log(N)$ split the data set in half with each step. For instance, computing an average value for all consumers with an attribute value (i.e., income level, amount of predicted sales, number of items purchased, etc) of a specific level (i.e., at least \$100,000 in income or sales, or 500 items purchased, etc).

Furthermore, the claim fails to contribute patentable weight, as computational time does impact the functionality of the claimed invention. Computational time is not functionally involved in the steps recited nor does it alter the recited structural elements. The recited method steps would be performed the same regardless of computational time. Further, the structural elements remain the same regardless of the computational

Art Unit: 3623

time. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); *MPEP* § 2106.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Anderson et al. and Lazarus et al. to perform the step of assigning a value for business potential with a computational time proportional to N or N*log(N) because the resulting combination would ensure efficiency of the evaluation process, reducing associated costs with data analysis, and data maintenance.

Claim 16 is rejected on a similar basis.

As per claim 10, Anderson et al. teaches a data processing system readable medium having code embodied therein (**computer program embodied in a computer-readable medium**), the code including instructions executable by a data processing system, wherein the instructions are configured to cause the data processing system to perform the steps of:

accessing (**retrieving**) data regarding the first customer (**data relating to different customers**) of a vendor [Claim 32]; and

assigning a value (**score**) for the business potential for the first customer, wherein the value is a function of at least a behavior (**affinity for particular products**) for a group of other individuals in a population (**Customers 1 through N**) and is based at least in part on the data (**scores indicating a relationship between a respective one of said customer records and a product**) [Column 7, lines 26-51 and Claim 32].

Anderson et al. does not explicitly teach a business potential that measures a potential transaction quantity available for the first customer. However, Lazarus et al. teaches a predictive model of future consumer spending patterns (a measurement of potential transaction quantity), specifically that:

Each consumer is given a profile that includes various demographic data, and summary data on spending habits [Column 3, lines 55-57]

Current spending data of an individual consumer or groups of consumers can then be applied to the predictive models to predict future spending of the consumers in each of the merchant clusters [Column 3, lines 5-10].

Lazarus et al. creates a predictive model of future spending in each merchant segment, based on transaction statistics of historical spending in the merchant segment by those consumers who have purchased from merchants in the segments, in other segments, and data on overall purchases. In one embodiment, each predictive model

Art Unit: 3623

predicts spending in a merchant cluster in a predicted time interval [Column 4, lines 11-18].

To predict financial behavior, the consumer profile of a consumer, using preferably the same type of summary statistics for a recent, past time period, is input into the predictive models for the different merchant clusters. The result is a prediction of the amount of money that the consumer is likely to spend in each merchant cluster in a future time interval [Column 4, lines 38-45].

Anderson et al. is directed towards retrieving customer information from a database and determining a score representative of customer relevance to a particular item of interest. Lazarus et al. is directed towards the analogous art of analyzing consumer transaction data to generate predictive models of future spending. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Anderson et al. to include a measurement of potential transaction quantity, because the resulting invention would enable companies to selectively identify populations of consumers (for example, those with predicted high or low dollar amounts or transaction rates) for targeted promotions, which increases the success rate of response to said promotions, leading to increased revenue and profitability.

Art Unit: 3623

9. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (U.S Patent #6,078,892) and Lazarus et al. (U.S Patent #6,430,539) as applied to claims 1 and 10 above, and further in view of Jim Novo's "Relationship in Relationship Marketing"

As per claim 2, Anderson et al. teaches the method of claim 1, further comprising:

determining an individualized result (**score**) and a group-wide result (**scores of all customers 1 through N**) [Column 7, lines 26-51 and Claim 1]; and

comparing (**ordering**) the individualized result with the group-wide result [Column 8, lines 36-41 and Claim 1].

Anderson et al. does not teach the step of determining individual and group-wide results based on the amount spent by the customer during a transaction or time period. However, Novo teaches the step of ranking all of a company's customers by the amount of money spent and also by the frequency and recency of visits or purchases.

Anderson et al. is directed towards retrieving customer information from a database and determining a score representative of customer relevance to a particular item of interest. Lazarus et al. is directed towards the analogous art of analyzing consumer transaction data to generate predictive models of future spending. Novo is

Art Unit: 3623

directed to the analogous art of retrieving customer information to rank customers in an order indicative of customers with higher economic value and greater profitability.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Anderson et al. and Lazarus et al. to include the step of ranking customers according to the amount spent during a transaction period because the resulting combination would enable a company to obtain a relative and absolute measure regarding each customer's value to the company.

As per claim 11, Anderson et al. teaches the data processing system readable medium of claim 10, wherein the instructions are further configured to cause the data processing system to:

determining an individualized result (**score**) and a group-wide result (**scores of all customers 1 through N**) [Column 7, lines 26-51 and Claim 32A]; and

comparing (**ordering**) the individualized result with the group-wide result [Column 8, lines 36-41 and Claim 32E].

Anderson et al. is a computer-implemented process; thus, each step is encoded and configured to cause the computer to perform a plurality of tasks. Therefore, the limitation of the claim is met. [Further see claim 32, which claims a computer program embodied in a computer-readable medium for retrieving customer lead information from a marketing database, said database storing a plurality of customer records each

Art Unit: 3623

containing data relating to a different customer, said program being performed on or with aid of a customer and including code means for causing the computer to assign scores to said plurality of customer records, each of said scores indicating a relationship between a respective one of said customer records and a product]

As stated above, Anderson et al. does not teach the step of determining individual and group-wide results based on the amount spent by the customer during a transaction or time period. However, Novo teaches the step of ranking all of a company's customers by the amount of money spent. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Anderson et al. to include the step of ranking customers according to the amount spent during a transaction because the resulting combination would enable a company to obtain a relative and absolute measure regarding each customer's value to the company.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Blume et al. (U.S Patent #6,839,682) teaches predictive modeling of consumer financial behavior by applying consumer transaction data to predictive models

Art Unit: 3623

associated with merchant segments. Current spending data of an individual consumer or groups of consumers can then be applied to the predictive models to predict future spending of the consumers.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3623

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PC

Peter Choi
Examiner
Art Unit 3623

December 20, 2005


TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3623